

[HEADER]

;This data is read from the header in the test file, or edited manually.
;User name
sUserName = STANLEY SIMS
;License plate text
sVEH_LIC = EPA3106
;Vehicle Description
sVEH_DESC = 2014 VW JETTA
;Instrument ID or Serial Number
sSERIAL_ID = B06-SDS01
;Engine displacement in liters
iENG_SIZE = 2.0 DIESEL
;Vehicle Interface Type Used
sVIType = Type V - CAN
;Rated Horse Power
sRatedHP =
;Rated RPM
sRatedRPM =
;Curb Idle Load
iCurbLoad = "0.00"
=====

[ALIGN_CONTROL]

;This sets the device delay times in seconds
;VI is typically set to zero, and other devices delayed relative to the VI
;Device names can be used to set the device delays, and are applied to each parameter reported by the device
;Parameter names can be used to set additional delays for individual parameters
;Device delays will be added to individual parameter delays
;External Analog Input delays are treated a separate delays named EAI1_AC, EAI2_AC, and EAI3_AC
;Floating point numbers can be used to represent fractions of seconds
AMBII = "4.0"
NDUV = "4.0"
SCB = "0.0"
FID = "3.0"
VI = "0.0"
FLOW = "1.0"
FID2 = "5.0"
iENG_SPEED = "0.0"
EAI1_AC = "0.0"

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EAI2_AC = "0.0"
EAI3_AC = "0.0"
iSCB_ET = 0
iAMBII_O2 = "0.0"
MSS = "2.0"
GPS = "0.0"
SIGCO = 5
iFID2_CH4 = "0.0"
=====
AUXTEMP = "0.0"

[CALC_CONTROL]
; Torque selection
; The following is to determine which torque to use for calculations.
;Select either calc (derived from RPM and lug curve) or ecm (direct reading from
vehicle)
;default=ecm
Torque = "ecm"
USE_FRICT_TORQ = "YES"
; Fuel Specific Gravity
; The following is to set fuel specific gravity to use during calculations
; default is .85
SG_fuel = 0.850
; H/C Ratio
; The following is to set H/C ratio of fuel to use during calculations
; default is 1.8
HC_Ratio = 1.800
; Calculation Method
; can be either VI or EXH_FLOW
Calc_Method = "EXH_FLOW"
; Chiller Efficiency
Eff_chiller = 75
; NTE method selection
; can be either AVG or SUM
NTE_Type = "None"
AMBII_RPM_SCALAR = "2.00"
NOX_KH = "CFR40_1065_670"
; This is the conversion factor used to estimate the NMHC using THC
; when the CH4 FID is not available
THC_TO_NMHC_CONVERT = .97

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REF_WORK = "10.00"
EngineIdleSpeed = "0"
VehicleIdleSpeed = "0"
; this controls the value below which the Signal CO will be used in calcs, should it be
available
LOCOTHRESH = 500

[EXTERNAL_ANALOG_IN]
EAI1 =
EAI2 =
EAI3 =

[POLY_XFORMS]

[LUG_CURVE]
;=====
; LUG Curve data
; The post processor will use this data to compute NTE zone occurrences.
; It will also use it to calculate torque based on RPM and %Load if Torque=calc is
selected
; The string below is a comma delimited string with the following format
; param 1=30% of max torque (lower Torque bound of NTE zone)
; param 2=15% ESC speed (Lower RPM boundary of NTE zone)
; param 3=N_Hi (Upper RPM boundary of NTE zone)
; param 4=RPM 1
; param 5=Torq 1
;
;
;
; .=RPM N
; .=Torq N

LUGName =
sLUGValues =
;=====

[FUEL]
;=====
FuelName =#2 Diesel
FuelRatios =0.85,1.00,1.80,0.00,0.00,0.00
;=====

[OUTPUT_PARAMS]
; The following section indicates which parameters are to be written to the output
file.
; Any parameter begining with "Output_" will create a comma delimited list of

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parameters IDs
;

; NOTE: After the post processor has been run, a file will be created in the output
file

; path having the same name as the chosen output file with "_params.txt" added to
; the end. This file will be a list of all the available parameter IDs that can be
; be referenced.

;

Output_INFO = sDATE,sTIME

Output_GASES =
iCO2z,iCOz,iNOz,iNO2z,iNOxz,iCALCRT_Kh,ikNOz,ikNO2z,ikNOxz,iHCz,iCH4z,iNMHCz,iC6H14z,iA
VLMSSz,iO2z,iAMBII_HC_PROPANE

Output_G_GASES =
iCO2z,iCOz,iNOz,iCALCRT_Kh,ikNOz,iHCz,iCH4z,iNMHCz,iC6H14z,iAVLMSSz,iO2z,iAMBII_HC_PROP
ANE

Output_RAWGASES =
iAMBII_CO2,iAMBII_CO,iSIGCO_CO,iAMBII_COPPM,iNDUV_NO,iNDUV_NO2,iFID_THC,iFID2_CH4,iAMBI
I_O2,iAMBII_HC

Output_G_RAWGASES =
iAMBII_CO2,iAMBII_CO,iAMBII_COPPM,iNDUV_NO,iFID_THC,iFID2_CH4,iAMBII_O2,iAMBII_HC

Output_FLOW =
icMASS_FLOW,Ev_std,iFLOW_EX_TEMP,iFLOW_UP_PRESS,iFLOW_SPLINED_PRESS,sFLOW_AVAILABLE

Output_METHODII = iM2Work,iBSFC,iBhpw,iPPTorq,iENG_SPEED,iCOM_INJQ

Output_PPMD = FLOW_ALL

Output_DETFLow =
iFLOW_MASS_FLOW,iFLOW_DC_MASS_FLOW,sFLOW_AVAILABLE,iFLOW_EX_TEMP,iFLOW_UP_PRESS,sFLOW_H
STATUS,sFLOW_VSTATUS,iFLOW_PRESS1,iFLOW_PRESS2,iFLOW_PRESS4,iFLOW_PRESS5,iFLOW_PRESS6,i
FLOW_PRESS7,iFLOW_BOXTEMP,iFLOW_MANTEMP1,iFLOW_MANTEMP2,iFLOW_MASS_FLOW_LA,iFLOW_RAK,iF
LOW_SPLINED_PRESS

Output_G_DETFLow =
iFLOW_MASS_FLOW,iFLOW_DC_MASS_FLOW,sFLOW_AVAILABLE,iFLOW_EX_TEMP,iFLOW_UP_PRESS,sFLOW_H
STATUS,sFLOW_VSTATUS,iFLOW_PRESS1,iFLOW_PRESS2,iFLOW_PRESS4,iFLOW_PRESS5,iFLOW_PRESS6,i
FLOW_PRESS7,iFLOW_BOXTEMP,iFLOW_MANTEMP1,iFLOW_MANTEMP2,iFLOW_MASS_FLOW_LA,iFLOW_RAK,iF
LOW_SPLINED_PRESS

Output_Wet_Gases =
Kw,iCO2zw,iCOzw,iNOzw,iNO2zw,iNOxzw,ikNOzw,ikNO2zw,ikNOxz,iHCzw,iCH4zw,iNMHCzw,iC6H14z
w,iAVLMSSzw,iO2zw

Output_G_Wet_Gases =
Kw,iCO2zw,iCOzw,iNOzw,ikNOzw,iHCzw,iCH4zw,iNMHCzw,iC6H14zw,iAVLMSSzw,iO2zw

Output_Fuel_specific =
iCALCRT_CO2fs,iCALCRT_COfs,iCALCRT_NOfs,iCALCRT_NO2fs,iCALCRT_NOxfs,iCALCRT_kNOfs,iCALC
RT_kNO2fs,iCALCRT_kNOxfs,iCALCRT_HCfs,iCALCRT_CH4fs,iCALCRT_NMHCfs,iCALCRT_C6H14fs,iCAL
CRT_AVLMSSfs,iCALCRT_O2fs

Output_G_Fuel_specific =
iCALCRT_CO2fs,iCALCRT_COfs,iCALCRT_NOfs,iCALCRT_kNOfs,iCALCRT_HCfs,iCALCRT_CH4fs,iCALCR
T_NMHCfs,iCALCRT_C6H14fs,iCALCRT_AVLMSSfs,iCALCRT_O2fs

Output_SCB =
sSTATUS_PATH,sAUTOZERO_ACTIVE,iSCB_PSV,iSCB_SPP,iSCB_DP1P,iSCB_DP2P,iSCB_RH,iHum_Abs,iH
um_Vol,iSCB_LAP,iSCB_LAT,iSCB_ET,iSCB_CJCT,iSCB_FT,iSCB_ELT,iSCB_CT,iFID_OT,iFID2_OT

Output_G_SCB =
sSTATUS_PATH,sAUTOZERO_ACTIVE,iSCB_PSV,iSCB_SPP,iSCB_DP1P,iSCB_DP2P,iSCB_RH,iHum_Abs,iH

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um_Vol,iSCB_LAP,iSCB_LAT,iSCB_ET,iSCB_CJCT,iSCB_CT,iFID_OT,iFID2_OT
Output_GPS =
sGPS_QUAL,sGPS_TIME,iGPS_LAT,iGPS_LON,iGPS_ALT,iGPS_GROUND_SPEED,sGPS_NUMSATINVIEW,sGPS_NUMSATINUSE,sGPS_PRNSATUSED,iGPS_HDOP,iGPS_VDOP,iGPS_PDOP
Output_VI = VI_ALL
Output_G_VI = VI_ALL
Output_RPM = iAMBII_RPM
Output_ParamsUsed = iENG_SPEED_USED,iVEH_SPEED_USED
Output_MASS_Realtime =
SG_fuel,iWfgps,iPPTorq,iBhp,sPPNTE_ZONE,iCALCRT_CO2m,iCALCRT_COm,iCALCRT_NOm,iCALCRT_NO2m,iCALCRT_NOxm,iCALCRT_kNom,iCALCRT_kNO2m,iCALCRT_kNOxm,iCALCRT_HCm,iCALCRT_CH4m,iCALCRT_NMHCm,iCALCRT_C6H14m,iCALCRT_AVLMSSm,iCALCRT_O2m
Output_G_MASS_Realtime =
SG_fuel,iWfgps,iCALCRT_CO2m,iCALCRT_COm,iCALCRT_NOm,iCALCRT_kNom,iCALCRT_HCm,iCALCRT_CH4m,iCALCRT_NMHCm,iCALCRT_C6H14m,iCALCRT_AVLMSSm,iCALCRT_O2m
Output_30sAverage =
iCALCAVG_Vw,iCALCAVG_Wwmpg,iBhpw,iCALCAVG_CO2wb,iCALCAVG_COwb,iCALCAVG_NOwb,iCALCAVG_NO2wb,iCALCAVG_NOxwb,iCALCAVG_kNOWb,iCALCAVG_kNO2wb,iCALCAVG_kNOxwb,iCALCAVG_HCwb,iCALCAVG_CH4wb,iCALCAVG_NMHCwb,iCALCAVG_C6H14wb,iCALCAVG_AVLMSSwb
Output_G_30sAverage =
iCALCAVG_Vw,iCALCAVG_Wwmpg,iCALCAVG_CO2wb,iCALCAVG_COwb,iCALCAVG_NOwb,iCALCAVG_kNOWb,iCALCAVG_HCwb,iCALCAVG_CH4wb,iCALCAVG_NMHCwb,iCALCAVG_C6H14wb,iCALCAVG_AVLMSSwb
Output_NTEAverage =
iCALCAVG_NTE_CO2wb,iCALCAVG_NTE_COwb,iCALCAVG_NTE_NOwb,iCALCAVG_NTE_NO2wb,iCALCAVG_NTE_NOxwb,iCALCAVG_NTE_kNOWb,iCALCAVG_NTE_kNO2wb,iCALCAVG_NTE_kNOxwb,iCALCAVG_NTE_HCwb,iCALCAVG_NTE_CH4wb,iCALCAVG_NTE_NMHCwb,iCALCAVG_NTE_C6H14wb,iCALCAVG_NTE_AVLMSSwb
Output_NTESum =
iCALCSUM_NTE_CO2cb,iCALCSUM_NTE_COcb,iCALCSUM_NTE_NOcb,iCALCSUM_NTE_NO2cb,iCALCSUM_NTE_NOxcb,iCALCSUM_NTE_kNOcb,iCALCSUM_NTE_kNO2cb,iCALCSUM_NTE_kNOxcb,iCALCSUM_NTE_HCcb,iCALCSUM_NTE_CH4cb,iCALCSUM_NTE_NMHCcb,iCALCSUM_NTE_C6H14cb,iCALCSUM_NTE_AVLMSScb,iCALCSUM_NTE_CO2fwfs,iCALCSUM_NTE_COfwfs,iCALCSUM_NTE_NOfwfs,iCALCSUM_NTE_NO2fwfs,iCALCSUM_NTE_NOxfwfs,iCALCSUM_NTE_kNOfwfs,iCALCSUM_NTE_kNO2fwfs,iCALCSUM_NTE_kNOxfwfs,iCALCSUM_NTE_HCfwfs,iCALCSUM_NTE_CH4fwfs,iCALCSUM_NTE_NMHCfwfs,iCALCSUM_NTE_C6H14fwfs
Output_ECON_cumulative = iCALCSUM_Dc,iCALCSUM_Wc,iCALCSUM_Wcmpg
Output_MASS_D_cumulative =
iCALCSUM_CO2cm,iCALCSUM_COcm,iCALCSUM_NOcm,iCALCSUM_NO2cm,iCALCSUM_NOxcm,iCALCSUM_kNOcm,iCALCSUM_kNO2cm,iCALCSUM_kNOxcm,iCALCSUM_HCcm,iCALCSUM_CH4cm,iCALCSUM_NMHCcm,iCALCSUM_C6H14cm,iCALCSUM_AVLMSScm
Output_G_MASS_D_cumulative =
iCALCSUM_CO2cm,iCALCSUM_COcm,iCALCSUM_NOcm,iCALCSUM_kNOcm,iCALCSUM_HCcm,iCALCSUM_CH4cm,iCALCSUM_NMHCcm,iCALCSUM_C6H14cm,iCALCSUM_AVLMSScm
Output_MASS_B_cumulative =
iBhpc,iCALCSUM_CO2cb,iCALCSUM_COcb,iCALCSUM_NOcb,iCALCSUM_NO2cb,iCALCSUM_NOxcb,iCALCSUM_kNOcb,iCALCSUM_kNO2cb,iCALCSUM_kNOxcb,iCALCSUM_HCcb,iCALCSUM_CH4cb,iCALCSUM_NMHCcb,iCALCSUM_C6H14cb,iCALCSUM_AVLMSScb
Output_Exhaust_Analysis = AF_Stoich,AF_Calc,Lambda,H2O_exh
Output_ACCURACYTEST =
iAMBII_CO2,iAMBII_CO,iAMBII_COPPM,iNDUV_NO,iNDUV_NO2_RAW,iNOxz,iFID_THC,iHCz,iAMBII_O2,iSCB_PSV,iSCB_SPP,iSCB_DP1P,iSCB_DP2P,iSCB_RH,iHum_Abs,iHum_Vol,iSCB_LAP,iSCB_LAT,iSCB_ET,iSCB_CJCT,iSCB_FT,iSCB_ELT,iSCB_CT,iFID_OT,iNDUV_BT1,iNDUV_NO_RAWMOD,iNDUV_REF1_RAWMOD,iNDUV_NO2_RAWMOD,iNDUV_REF2_RAWMOD,iFID2_CH4,iFID2_OT,iNMHCz,iC6H14z,iNDUV_ATEMP,iAMBII_ATEMP,iAMBII_HC_PROPANE,iAMBII_Pressure,iNDUV_Pressure,iHUM_HUMID,iHUM_TEMP,iNDUV_N_O2
Output_G_ACCURACYTEST =

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iAMBII_CO2,iAMBII_CO,iAMBII_COPPM,iNDUV_NO,iFID_THC,iHCz,iAMBII_O2,iSCB_PSV,iSCB_SPP,is
CB_DP1P,iSCB_DP2P,iSCB_RH,iHum_Abs,iHum_Vol,iSCB_LAP,iSCB_LAT,iSCB_ET,iSCB_CJCT,iSCB_CT
,iFID_OT,iNDUV_BT1,iNDUV_NO_RAWMOD,iNDUV_REF1_RAWMOD,iFID2_CH4,iFID2_OT,iNMHCz,iC6H14z,
iNDUV_ATEMP,iAMBII_ATEMP,iAMBII_HC_PROPANE,iAMBII_Pressure,iNDUV_Pressure

Output_ANALOG_IN = iSCB_EAI1,iSCB_EAI2,iSCB_EAI3,AI_ALL

Output_DIGITAL_IN = sSCB_ED1,sSCB_ED2

Output_AVL_MSS = iAVLMSS_Conc,iAVLMSS_DR,iAVLMSS_AdjConc

Output_FILTER_SYSTEM =
ssFS_STATE,ssFS_FILL_ELAPSED,ssFS_FILL2_ELAPSED,ssFS_FILL3_ELAPSED,ssFS_FILL_ACTIVE,ssFS_
FIL2_ACTIVE,ssFS_FILL3_ACTIVE,ssFS_CYCLONE_TEMP,ssFS_MANIFOLD_TEMP,ssFS_CABINET_TEMP,ssFS_
HL_TEMP,ssFS_MFC_FLOW,ssFS_FILL1_STAT,ssFS_FILL2_STAT,ssFS_FILL3_STAT,ssFS_FILL4_STAT,ssFS_
PUMP_STAT,ssFS_DP

Output_AEA =
iAEA_QDT_UP,iAEA_QDR_UP,iAEA_FILDIAM_UP,iAEA_QSACTUAL_UP,iAEA_DRACTUAL_UP,iAEA_FILVELOC
ITY_UP,iAEA_QDT_DN,iAEA_QDR_DN,iAEA_FILDIAM_DN,iAEA_QSACTUAL_DN,iAEA_DRACTUAL_DN,iAEA_F
ILVELOCITY_DN,sAEA_MFC_OUTPUTS,iAEA_MFC1_VALUE,iAEA_MFC2_VALUE,iAEA_MFC3_VALUE,iAEA_MFC
4_VALUE,iAEA_MFC1_SETPOINT,iAEA_MFC2_SETPOINT,iAEA_MFC3_SETPOINT,iAEA_MFC4_SETPOINT,iAE
A_AIN_0,iAEA_AIN_1,iAEA_AIN_2,iAEA_AIN_3,iAEA_AIN_6,iAEA_AIN_7,iAEA_DT_UP,iAEA_DT_DOWN,
iAEA_HEATER_0_SET,iAEA_HEATER_1_SET

Output_METRIC_FLOW =
icMASS_FLOW,mEV_std,iFLOW_EX_TEMP,iFLOW_UP_PRESS,iFLOW_SPLINED_PRESS,sFLOW_AVAILABLE

Output_METRIC_PPMD =
icMASS_FLOW,Ev_std,iFLOW_DC_MASS_FLOW,sFLOW_AVAILABLE,iFLOW_MASS_FLOW,iFLOW_EX_TEMP,iFL
OW_DENSITY,iFLOW_UP_PRESS,iFLOW_SPLINED_PRESS,imPS_k_Torbar,imPS_Pipe_Diameter,smPS_Ope
ration_Mode,imPS_k_Exhaust,imPS_Qex_Max_Flow,imPS_DR_SP,imPS_DR_Max,imPS_DR_Min,imPS_Ga
s_Temp,imPS_Inlet_Press,imPS_Qneedle,imPS_Average_Q,imPS_DP_Needle,imPS_Upp_Needle,imPS
_Qmajor,imPS_Qminor,imPS_Qtotal,imPS_Major_Flow_SP,imPS_Minor_Flow_SP,imPS_Total_Flow_S
P,imPS_Maj_Sol_BPress,imPS_Maj_Cent_BTemp,imPS_Min_Sol_BPress,imPS_Min_Cent_BTemp,sGF_F
ilter_1_Status,sGF_Filter_2_Status,sGF_Filter_3_Status,sGF_Filter_4_Status,iGF_Cyclone_Temp,iGF
_Manifold_Temp,iGF_Filter_Temp,iGF_Filter_Press_1,iGF_Filter_Press_2,iGF_Filter_MFC_FLO
W

Output_METRIC_DETFLOW =
iFLOW_MASS_FLOW,iFLOW_DC_MASS_FLOW,sFLOW_AVAILABLE,iFLOW_EX_TEMP,iFLOW_UP_PRESS,sFLOW_H
STATUS,sFLOW_VSTATUS,iFLOW_PRESS1,iFLOW_PRESS2,iFLOW_PRESS4,iFLOW_PRESS5,iFLOW_PRESS6,i
FLOW_PRESS7,iFLOW_BOXTEMP,iFLOW_MANTEMP1,iFLOW_MANTEMP2,iFLOW_MASS_FLOW_LA,iFLOW_RAK,iF
LOW_SPLINED_PRESS

Output_METRIC_G_DETFLOW =
iFLOW_MASS_FLOW,iFLOW_DC_MASS_FLOW,sFLOW_AVAILABLE,iFLOW_EX_TEMP,iFLOW_UP_PRESS,sFLOW_H
STATUS,sFLOW_VSTATUS,iFLOW_PRESS1,iFLOW_PRESS2,iFLOW_PRESS4,iFLOW_PRESS5,iFLOW_PRESS6,i
FLOW_PRESS7,iFLOW_BOXTEMP,iFLOW_MANTEMP1,iFLOW_MANTEMP2,iFLOW_MASS_FLOW_LA,iFLOW_RAK,iF
LOW_SPLINED_PRESS

Output_METRIC_SCB =
iSCB_PSV,iSCB_SPP,iSCB_DP1P,iSCB_DP2P,iSCB_RH,imHum_Abs,iHum_Vol,iSCB_LAP,iSCB_LAT,iSCB
_ET,iSCB_CJCT,iSCB_FT,iSCB_CT,iFID_OT,iFID2_OT

Output_METRIC_G_SCB =
iSCB_PSV,iSCB_SPP,iSCB_DP1P,iSCB_DP2P,iSCB_RH,imHum_Abs,iHum_Vol,iSCB_LAP,iSCB_LAT,iSCB
_ET,iSCB_CJCT,iSCB_CT,iFID_OT,iFID2_OT

Output_METRIC_ParamsUsed = iENG_SPEED_USED,imVEH_SPEED_USED

Output_METRIC_MASS_Realtime =
SG_fuel,imPPTorq,imBhp,sPPNTE_ZONE,iCALCRT_CO2m,iCALCRT_COm,iCALCRT_NOm,iCALCRT_NO2m,iC
ALCRT_NOxm,iCALCRT_kNom,iCALCRT_kNO2m,iCALCRT_kNOxm,iCALCRT_HCm,iCALCRT_CH4m,iCALCRT_
HCm,iCALCRT_C6H14m,iCALCRT_AVLMSSm,iCALCRT_O2m

Output_METRIC_G_MASS_Realtime =
SG_fuel,iCALCRT_CO2m,iCALCRT_COm,iCALCRT_NOm,iCALCRT_kNom,iCALCRT_HCm,iCALCRT_CH4m,iCAL
CRT_NMHCm,iCALCRT_C6H14m,iCALCRT_AVLMSSm,iCALCRT_O2m

Output_METRIC_30sAverage =

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imCALCAVG_Vw,imCALCAVG_Wwmpg,imBhpw,imCALCAVG_CO2wb,imCALCAVG_Cowb,imCALCAVG_NOwb,imCALCAVG_NO2wb,imCALCAVG_NOxwb,imCALCAVG_kNOWb,imCALCAVG_kNO2wb,imCALCAVG_kNOxwb,imCALCAVG_HCwb,imCALCAVG_CH4wb,imCALCAVG_NMHCwb,imCALCAVG_C6H14wb,imCALCAVG_AVLMSSwb

Output_METRIC_G_30sAverage =
imCALCAVG_Vw,imCALCAVG_Wwmpg,imCALCAVG_CO2wb,imCALCAVG_Cowb,imCALCAVG_NOwb,imCALCAVG_kN
Owb,imCALCAVG_HCwb,imCALCAVG_CH4wb,imCALCAVG_NMHCwb,imCALCAVG_C6H14wb,imCALCAVG_AVLMSSw
b

Output_METRIC_NTEAverage =
imCALCAVG_NTE_CO2wb,imCALCAVG_NTE_Cowb,imCALCAVG_NTE_NOwb,imCALCAVG_NTE_NO2wb,imCALCAVG
_NTE_NOxwb,imCALCAVG_NTE_kNOWb,imCALCAVG_NTE_kNO2wb,imCALCAVG_NTE_kNOxwb,imCALCAVG_NTE
HCwb,imCALCAVG_NTE_CH4wb,imCALCAVG_NTE_NMHCwb,imCALCAVG_NTE_C6H14wb,imCALCAVG_NTE_AVLMS
Swb

Output_METRIC_NTESum =
imCALCSUM_NTE_CO2cb,imCALCSUM_NTE_CoCb,imCALCSUM_NTE_NoCb,imCALCSUM_NTE_NO2cb,imCALCSUM
_NTE_NOxcb,imCALCSUM_NTE_kNOcb,imCALCSUM_NTE_kNO2cb,imCALCSUM_NTE_kNOxcb,imCALCSUM_NTE
HCcb,imCALCSUM_NTE_CH4cb,imCALCSUM_NTE_NMHCcb,imCALCSUM_NTE_C6H14cb,imCALCSUM_NTE_AVLMS
Scb,iCALCSUM_NTE_CO2fwfs,iCALCSUM_NTE_Cofwfs,iCALCSUM_NTE_NoFwfs,iCALCSUM_NTE_NO2fwfs,i
CALCSUM_NTE_NOxfwfs,iCALCSUM_NTE_kNoFwfs,iCALCSUM_NTE_kNO2fwfs,iCALCSUM_NTE_kNOxfwfs,iC
ALCSUM_NTE_HCfwfs,iCALCSUM_NTE_CH4fwfs,iCALCSUM_NTE_NMHCfwfs,iCALCSUM_NTE_C6H14fwfs

Output_METRIC_ECON_cumulative = imCALCSUM_Dc,imCALCSUM_Wc,imCALCSUM_Wcmpg

Output_METRIC_MASS_D_cumulative =
imCALCSUM_CO2cm,imCALCSUM_COcm,imCALCSUM_NOcm,imCALCSUM_NO2cm,imCALCSUM_NOxcm,imCALCSUM
_kNOcm,imCALCSUM_kNO2cm,imCALCSUM_kNOxcm,imCALCSUM_HCcm,imCALCSUM_CH4cm,imCALCSUM_NMHC
cm,imCALCSUM_C6H14cm,imCALCSUM_AVLMSScm

Output_METRIC_G_MASS_D_cumulative =
imCALCSUM_CO2cm,imCALCSUM_COcm,imCALCSUM_NOcm,imCALCSUM_kNOcm,imCALCSUM_HCcm,imCALCSUM
CH4cm,imCALCSUM_NMHCcm,imCALCSUM_C6H14cm,imCALCSUM_AVLMSScm

Output_METRIC_MASS_B_cumulative =
imBhpc,imCALCSUM_CO2cb,imCALCSUM_CoCb,imCALCSUM_NoCb,imCALCSUM_NO2cb,imCALCSUM_NOxcb,im
CALCSUM_kNOcb,imCALCSUM_kNO2cb,imCALCSUM_kNOxcb,imCALCSUM_HCcb,imCALCSUM_CH4cb,imCALCSU
M_NMHCcb,imCALCSUM_C6H14cb,imCALCSUM_AVLMSScb

Output_METRIC_GPS =
sGPS_QUAL,sGPS_TIME,iGPS_LAT,iGPS_LON,iGPS_ALT,iGPS_GROUND_SPEED,sGPS_NUMSATINVIEW,sGPS
_NUMSATINUSE,sGPS_PRNSATUSED,iGPS_HDOP,iGPS_VDOP,iGPS_PDOP

Output_METRIC_VI =
VI_ALL,imVEH_SPEED,imFUEL_RATE2,imFUEL_ECON,imENG_TORQUE,imOIL_TEMP,imMAN_TEMP,imCOOL_T
EMP

Output_METRIC_G_VI =
VI_ALL,imVEH_SPEED,imFUEL_RATE2,imFUEL_ECON,imOIL_TEMP,imMAN_TEMP,imCOOL_TEMP

Output_BOTH_FLOW =
icMASS_FLOW,mEV_std,EV_std,iFLOW_EX_TEMP,iFLOW_UP_PRESS,iFLOW_SPLINED_PRESS,sFLOW_AVAI
LABLE

Output_BOTH_DETFLow =
iFLOW_MASS_FLOW,iFLOW_DC_MASS_FLOW,sFLOW_AVAILABLE,iFLOW_EX_TEMP,iFLOW_UP_PRESS,sFLOW_H
STATUS,sFLOW_VSTATUS,iFLOW_PRESS1,iFLOW_PRESS2,iFLOW_PRESS4,iFLOW_PRESS5,iFLOW_PRESS6,i
FLOW_PRESS7,iFLOW_BOXTEMP,iFLOW_MANTEMP1,iFLOW_MANTEMP2,iFLOW_MASS_FLOW_LA,iFLOW_RAK,iF
LOW_SPLINED_PRESS

Output_BOTH_G_DETFLow =
iFLOW_MASS_FLOW,iFLOW_DC_MASS_FLOW,sFLOW_AVAILABLE,iFLOW_EX_TEMP,iFLOW_UP_PRESS,sFLOW_H
STATUS,sFLOW_VSTATUS,iFLOW_PRESS1,iFLOW_PRESS2,iFLOW_PRESS4,iFLOW_PRESS5,iFLOW_PRESS6,i
FLOW_PRESS7,iFLOW_BOXTEMP,iFLOW_MANTEMP1,iFLOW_MANTEMP2,iFLOW_MASS_FLOW_LA,iFLOW_RAK,iF
LOW_SPLINED_PRESS

Output_BOTH_SCB =
iSCB_PSV,iSCB_SPP,iSCB_DP1P,iSCB_DP2P,iSCB_RH,imHum_Abs,iHum_Abs,iHum_Vol,iSCB_LAP,iSCB
_LAT,iSCB_ET,iSCB_CJCT,iSCB_FT,iSCB_ELT,iSCB_CT,iFID_OT,iFID2_OT

Output_BOTH_G_SCB =

```

```

iSCB_PSV,iSCB_SPP,iSCB_DP1P,iSCB_DP2P,iSCB_RH,imHum_Abs,iHum_Abs,iHum_Vol,iSCB_LAP,iSCB
_LAT,iSCB_ET,iSCB_CJCT,iSCB_CT,iFID_OT,iFID2_OT

Output_BOTH_ParamsUsed = iENG_SPEED_USED,iVEH_SPEED_USED,imVEH_SPEED_USED

Output_BOTH_MASS_Realtime =
SG_fuel,imPPTorg,iPPTorg,imBhp,iBhp,sPPNTE_ZONE,iCALCRT_CO2m,iCALCRT_COm,iCALCRT_NOm,iC
ALCRT_NO2m,iCALCRT_NOxm,iCALCRT_kNom,iCALCRT_kNO2m,iCALCRT_kNOxm,iCALCRT_HCm,iCALCRT_CH
4m,iCALCRT_NMHCm,iCALCRT_C6H14m,iCALCRT_AVLMSSm,iCALCRT_O2m

Output_BOTH_G_MASS_Realtime =
SG_fuel,iCALCRT_CO2m,iCALCRT_COm,iCALCRT_NOm,iCALCRT_kNom,iCALCRT_HCm,iCALCRT_CH4m,iCAL
CRT_NMHCm,iCALCRT_C6H14m,iCALCRT_AVLMSSm,iCALCRT_O2m

Output_BOTH_30sAverage =
imCALCAVG_Vw,iCALCAVG_Vw,imCALCAVG_Wwmpg,iCALCAVG_Wwmpg,imBhpw,iBhpw,imCALCAVG_CO2wb,iC
ALCAVG_CO2wb,imCALCAVG_COwb,iCALCAVG_COwb,imCALCAVG_NOWb,iCALCAVG_NOWb,imCALCAVG_NO2wb,
iCALCAVG_NO2wb,imCALCAVG_NOxwb,iCALCAVG_NOxwb,imCALCAVG_kNOWb,iCALCAVG_kNOWb,imCALCAVG_
kNO2wb,iCALCAVG_kNO2wb,imCALCAVG_kNOxwb,iCALCAVG_kNOxwb,imCALCAVG_HCwb,iCALCAVG_HCwb,im
CALCAVG_CH4wb,iCALCAVG_CH4wb,imCALCAVG_NMHCwb,iCALCAVG_NMHCwb,imCALCAVG_C6H14wb,iCALCAV
G_C6H14wb,imCALCAVG_AVLMSSwb,iCALCAVG_AVLMSSwb

Output_BOTH_G_30sAverage =
imCALCAVG_Vw,iCALCAVG_Vw,imCALCAVG_Wwmpg,iCALCAVG_Wwmpg,imCALCAVG_CO2wb,iCALCAVG_CO2wb,
imCALCAVG_COwb,iCALCAVG_COwb,imCALCAVG_NOWb,iCALCAVG_NOWb,imCALCAVG_KNOWb,iCALCAVG_KNOW
b,imCALCAVG_HCwb,iCALCAVG_HCwb,imCALCAVG_CH4wb,iCALCAVG_CH4wb,imCALCAVG_NMHCwb,iCALCAVG
_NMHCwb,imCALCAVG_C6H14wb,iCALCAVG_C6H14wb,imCALCAVG_AVLMSSwb,iCALCAVG_AVLMSSwb

Output_BOTH_NTEAverage =
imCALCAVG_NTE_CO2wb,iCALCAVG_NTE_CO2wb,imCALCAVG_NTE_COwb,iCALCAVG_NTE_COwb,imCALCAVG_N
TE_NOWb,iCALCAVG_NTE_NOWb,imCALCAVG_NTE_NO2wb,iCALCAVG_NTE_NO2wb,imCALCAVG_NTE_NOxwb,iC
ALCAVG_NTE_NOxwb,imCALCAVG_NTE_kNOWb,iCALCAVG_NTE_kNOWb,imCALCAVG_NTE_kNO2wb,iCALCAVG_N
TE_kNO2wb,imCALCAVG_NTE_kNOxwb,iCALCAVG_NTE_kNOxwb,imCALCAVG_NTE_HCwb,iCALCAVG_NTE_HCwb
,imCALCAVG_NTE_CH4wb,iCALCAVG_NTE_CH4wb,imCALCAVG_NTE_NMHCwb,iCALCAVG_NTE_NMHCwb,imCALC
AVG_NTE_C6H14wb,iCALCAVG_NTE_C6H14wb,imCALCAVG_NTE_AVLMSSwb,iCALCAVG_NTE_AVLMSSwb

Output_BOTH_NTESum =
imCALCSUM_NTE_CO2cb,iCALCSUM_NTE_CO2cb,imCALCSUM_NTE_COcb,iCALCSUM_NTE_COcb,imCALCSUM_N
TE_NOcb,iCALCSUM_NTE_NOcb,imCALCSUM_NTE_NO2cb,iCALCSUM_NTE_NO2cb,imCALCSUM_NTE_NOxcb,iC
ALCSUM_NTE_NOxcb,imCALCSUM_NTE_kNOcb,iCALCSUM_NTE_kNOcb,imCALCSUM_NTE_kNO2cb,iCALCSUM_N
TE_kNO2cb,imCALCSUM_NTE_kNOxcb,iCALCSUM_NTE_kNOxcb,imCALCSUM_NTE_HCcb,iCALCSUM_NTE_HCcb
,imCALCSUM_NTE_CH4cb,iCALCSUM_NTE_CH4cb,imCALCSUM_NTE_NMHCcb,iCALCSUM_NTE_NMHCcb,imCALC
SUM_NTE_C6H14cb,iCALCSUM_NTE_C6H14cb,imCALCSUM_NTE_AVLMSScb,iCALCSUM_NTE_AVLMSScb,iCALC
SUM_NTE_CO2fwfs,iCALCSUM_NTE_COfwfs,iCALCSUM_NTE_NOfwfs,iCALCSUM_NTE_NO2fwfs,iCALCSUM_N
TE_NOxfwfs,iCALCSUM_NTE_kNOfwfs,iCALCSUM_NTE_kNO2fwfs,iCALCSUM_NTE_kNOxfwfs,iCALCSUM_N
TE_HCfwfs,iCALCSUM_NTE_CH4fwfs,iCALCSUM_NTE_NMHCfwfs,iCALCSUM_NTE_C6H14fwfs

Output_BOTH_ECON_cumulative =
imCALCSUM_Dc,iCALCSUM_Dc,imCALCSUM_Wc,iCALCSUM_Wc,imCALCSUM_Wcmpg,iCALCSUM_Wcmpg

Output_BOTH_MASS_D_cumulative =
imCALCSUM_CO2cm,iCALCSUM_CO2cm,imCALCSUM_COcm,iCALCSUM_COcm,imCALCSUM_NOcm,iCALCSUM_NO
cm,imCALCSUM_NO2cm,iCALCSUM_NO2cm,imCALCSUM_NOxcm,iCALCSUM_NOxcm,imCALCSUM_kNOcm,iCALCSU
M_kNOcm,imCALCSUM_kNO2cm,iCALCSUM_kNO2cm,imCALCSUM_kNOxcm,iCALCSUM_kNOxcm,imCALCSUM_HC
cm,iCALCSUM_HCcm,imCALCSUM_CH4cm,iCALCSUM_CH4cm,imCALCSUM_NMHCcm,iCALCSUM_NMHCcm,imCALCS
UM_C6H14cm,iCALCSUM_C6H14cm,imCALCSUM_AVLMSScm,iCALCSUM_AVLMSScm

Output_BOTH_G_MASS_D_cumulative =
imCALCSUM_CO2cm,iCALCSUM_CO2cm,imCALCSUM_COcm,iCALCSUM_COcm,imCALCSUM_NOcm,iCALCSUM_NO
cm,imCALCSUM_kNOcm,iCALCSUM_kNOcm,imCALCSUM_HCcm,iCALCSUM_HCcm,imCALCSUM_CH4cm,iCALCSUM_
CH4cm,imCALCSUM_NMHCcm,iCALCSUM_NMHCcm,imCALCSUM_C6H14cm,iCALCSUM_C6H14cm,imCALCSUM_AVL
MSScm,iCALCSUM_AVLMSScm

Output_BOTH_MASS_B_cumulative =
imBhp,iBhp,imCALCSUM_CO2cb,iCALCSUM_CO2cb,imCALCSUM_COcb,iCALCSUM_COcb,imCALCSUM_NOcb
,iCALCSUM_NOcb,imCALCSUM_NO2cb,iCALCSUM_NO2cb,imCALCSUM_NOxcb,iCALCSUM_NOxcb,imCALCSUM_
kNOcb,iCALCSUM_kNOcb,imCALCSUM_kNO2cb,iCALCSUM_kNO2cb,imCALCSUM_kNOxcb,iCALCSUM_kNOxcb
,imCALCSUM_HCcb,iCALCSUM_HCcb,imCALCSUM_CH4cb,iCALCSUM_CH4cb,imCALCSUM_NMHCcb,iCALCSUM_N
MHCCb,imCALCSUM_C6H14cb,iCALCSUM_C6H14cb,imCALCSUM_AVLMSScb,iCALCSUM_AVLMSScb

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```

Output_BOTH_GPS =
sGPS_QUAL,sGPS_TIME,iGPS_LAT,iGPS_LON,iGPS_ALT,iGPS_GROUND_SPEED,sGPS_NUMSATINVIEW,sGPS_NUMSATINUSE,sGPS_PRNSATUSED,iGPS_HDOP,iGPS_VDOP,iGPS_PDOP

Output_BOTH_VI =
VI_ALL,imVEH_SPEED,imFUEL_RATE2,imFUEL_ECON,imENG_TORQUE,imOIL_TEMP,imMAN_TEMP,imCOOL_TEMP

Output_BOTH_G_VI =
VI_ALL,imVEH_SPEED,imFUEL_RATE2,imFUEL_ECON,imOIL_TEMP,imMAN_TEMP,imCOOL_TEMP

; The predefined "Output_" parameter lists are now selected for output using the
; "WriteToCSV" parameter

WriteToCSV
=Output_INFO,Output_RAWGASES,Output_Wet_Gases,Output_SCB,Output_FLOW,Output_PPMD,Output_VI,Output_GPS,Output_Exhaust_Analysis,Output_Fuel_specific,Output_MASS_B_cumulative,Output_MASS_Realtime,Output_NTE,Output_DETFLW

[OUTPUT_SELECT]

; This group holds the default output selection for the G and D
; the WriteToCSV key in the previous section is used by the
; post processor dll, these keys are only used by the application

Output_Select_G =
Output_INFO,Output_G_RAWGASES,Output_G_GASES,Output_G_Wet_Gases,Output_G_SCB,Output_FLOW,Output_VI,Output_G_VI,Output_GPS,Output_ParamsUsed,Output_Exhaust_Analysis,Output_Fuel_specific

Output_Select_D =
Output_INFO,Output_RAWGASES,Output_Wet_Gases,Output_SCB,Output_FLOW,Output_PPMD,Output_VI,Output_GPS,Output_Exhaust_Analysis,Output_Fuel_specific,Output_MASS_B_cumulative,Output_MASS_Realtime,Output_NTE,Output_DETFLW

[OUTPUT_GROUP_DESC]

OGD_RAWGASES = "Raw Gas Concentrations"
OGD_Wet_Gases = "Wet Corrected Gas Concentrations"
OGD_SCB = "Sample System and Environmental Parameters"
OGD_FLOW = "Exhaust Flow Meter Parameters"
OGD_METHODII = "Method II Parameters"
OGD_PPMD = "SEMTECH PPMD Parameters"
OGD_AVL_MSS = "AVL Micro Soot Sensor Parameters"
OGD_VI = "Vehicle Network Parameters"
OGD_GPS = "GPS Parameters"
OGD_Exhaust_Analysis = "Exhaust Analysis"
OGD_Fuel_specific = "Fuel Specific Mass Emissions"
OGD_MASS_B_cumulative = "Brake Specific Cumulative Mass Emissions"
OGD_MASS_Realtime = "Instantaneous Mass Emissions"
OGD_30sAverage = "30 Second Average Mass Emissions"
OGD_NTE = "NTE Window Mass Emissions"
OGD_DIGITAL_IN = "Digital Inputs (EDI-1 and EDI-2)"
OGD_ANALOG_IN = "Analog Inputs (EAI-1, EAI-2, and EAI-3)"
OGD_RPM = "External RPM Probe"

```

```

OGD_ACCURACYTEST = "Factory Test"
OGD_DETFLOW = "SEMTECH EFM Service Parameters"
OGD_AEA = "Aerosol Emissions Analyzer"
OGD_FILTER_SYSTEM = "Sensors Filter System"

[OUTPUT_GROUP_DESC_G]
OGD_G_RAWGASES = "Raw Gas Concentrations"
OGD_G_Wet_Gases = "Wet Corrected Gas Concentrations"
OGD_G_SCB = "Sample System and Environmental Parameters"
OGD_FLOW = "SEMTECH EFM Parameters"
OGD_G_VI = "Vehicle Network Parameters"
OGD_GPS = "GPS Parameters"
OGD_Exhaust_Analysis = "Exhaust Analysis"
OGD_G_Fuel_specific = "Fuel Specific Mass Emissions"
OGD_G_MASS_Realtime = "Instantaneous Mass Emissions"
OGD_G_30sAverage = "30 Second Average Mass Emissions"
OGD_DIGITAL_IN = "Digital Inputs (EDI-1 and EDI-2)"
OGD_ANALOG_IN = "Analog Inputs (EAI-1, EAI-2, and EAI-3)"
OGD_RPM = "External RPM Probe"
OGD_G_ACCURACYTEST = "Factory Test"
OGD_G_DETFLOW = "SEMTECH EFM Service Parameters"

[DEBUG]
;This setting will control whether or not an intermediate file is created
; showing the time aligned and interpolated data, prior to any calculations
; being applied ("DELETE" specifies no file created, anything else specifies
; creation of the file named "~XXXX.csv" where XXXX is the name of the raw file
; minus the extension)
TILDE_FILE = DELETE

[MISC]
=====
=====
;The remaining parameters below are typically never changed.
;Please consult with Sensors, Inc. before changing.
; to change output format (commas instead of periods for decimal points, mm/dd/yyyy to
dd.mm.yyyy,
; semi-colons instead of commas for delimiters)
; Can be US or Europe (case sensitive)
OUTPUT_FORMAT =US
SHOW_HEXANE = NO
; output units (Metric, English, or Both) (case sensitive)

```

```

OUTPUT_UNITS =English
;To output all headers use next line
;headers=descriptions,id,units
headers = descriptions,id,units
; Output data frequency.
; This determines how frequent the output data is interpolated from the raw data
; default is 1 (1 Hz)
; NOTE: 0.5=2 Hz etc
FREQUENCY =1.000
;The following parameters instruct the post processor compute mass emissions using
; equations derived for heavy-duty diesel engines using J1708 VI protocol
SWF_ID = iWf2
SWFGPS_ID = iWfgps2
SHC_ID = iFID_THC
; optionally add a summary at the end of the file
; (used for SEMTECH-D, can be None, Top, Bottom, or Separate)
ADD_SUMMARY =Bottom
; the maximum number of records allowed in output files
; if this number is exceeded, a new file will be created
; containing the overflow records
; coded as follows
; 0=no limit
; 1=32000
; 2=64000
RECORDS_PER_FILE =0
; the vehicle type (GASOLINE or DIESEL)
VEHICLE_TYPE = DIESEL

[PARAM_OVERRIDES]
; This sections allows the user to override parameter values with either
; a number, or the id of another parameter. The overide will happen after
; the value is read in from the time aligned, interpolated data file but before
; any calculations are performed. While you can specify an override for any
; parameter, it would only do any good to specify parameters that are not
; derived during the calulations phase.
; (TIP: don't get too fancy, if you keep it simple it just might work)
; Some Examples:
;    iSCB_RAT=6
;    iSCB_LAP=-3.7
;    iVEH_SPEED=iGPS_GROUND_SPEED

```

```

iSCB_RH = ""
iSCB_LAT = ""

iVEH_SPEED_USED = "iVEH_SPEED"
iENG_SPEED_USED = "iENG_SPEED"
iFuelPlusMAF_MAF = "ScaledParam(,0.000000,0)"

[NMHC_CUTTER]

; G defaults
PF_CH4_G = 1.000
PF_C2H6_G = 0.015

; D defaults
PF_CH4_D = 0.000
PF_C2H6_D = 0.000

; cutter settings
PF_CH4 =0.000
PF_C2H6 =0.000

[LIMITS]

; The following parameters are use for QA during calculations
COClip = 0.000
CO2Clip = 0.00
O2Clip = 0.00
NOClip = 0
NO2Clip = 0
HCClip = 0
CH4Clip = 0
C6H14Clip = 0
AVLMSS_ConcClip = 0.000
AVLMSS_DRClip = 0.000

;Raw data error limits for engine speed, veh speed and flow rate
;These are rate of change limits for these parameters. This filters spurious data.
ENGSPD_LMT = 1000
VEHSPD_LMT = 21.0
FLOWRATE_LMT = 0.050
REFTORQ_LMT = 10000

; exhaust flow will be deemed not valid if not available for more than this
; number of seconds
FLOW_NOT_VALID_LMT = 4

; display units for the above limits (0=English, 1 = Metric)
LMT_UNITS = 0

;Brake-specific drop out limit. All Brake-specific 30 second window calculations

```

```
;are set left blank when the denominator is less than this value (default to .005)
iBS_LIMIT = 0.005
;Fuel specific drop out limit. All fuel specific calculations are set
;to zero when the denominator is less than this value
iFS_LIMIT = 0.50
;Number of readings to ignore when FID changes range
FIDRangeIgnore = 4

[RATE_OF_CHANGE_LIMIT]
iIAT = 20
iBARO_PRESS = 10
iCOOL_TEMP = 20
```